required, the only way to provide them is to insert loose feet. In the case of cast-iron jigs, however, solid legs cast in place are preferable. The solid legs cast in place generally have the appearance shown in the upper right-hand corner of Fig. 8. The two webs of the leg form a right angle, which, for all practical purposes, makes the leg fully as strong as if it were solid. The leg is tapered 15 degrees, as a rule, as shown in the engraving, but this may be varied according to conditions. The thickness of the leg varies according to the size of the jig, the weight of the work, and the pressure of the cutting tools, and depends also upon the length of the leg. The length *b* on top is generally made one and one-half times *a.* As an indication of the size of the legs required, it may be said that for smaller jigs, up to jigs with a face area of 6 square inches, the dimension *a* may be made from fV to f inch; for medium-sized jigs, | to f inch; for larger-sized jigs, f to ij inch; but, of course, these dimensions are simply indications of the required dimensions. As to the length of the legs, the governing condition, evidently, is that they must be long enough to reach below the lowest part of the work and the clamping arrangement, as clearly indicated in the design in Fig. 8.

If a jig is to be used in a multiple-spindle drill, it should be designed a great deal stronger than it is ordinarily designed when used for drilling one hole at a time. This is especially true if there is a large number of holes to drill simultaneously. It is evident that the pressure upon the jig in a multiple-spindle drill is as many times greater than the pressure in a common drill press as the number of drills in operation at once.

Referring again to Fig. 8, attention should be called to the small lugs *A* on the sides of the jig body which are cast in place for laying out and planing purposes. The handle should be made about 4 inches longj which permits a fairly good grip by the hand. The design of the jig shown is simple, and fills all requirements necessary for producing work quickly and accurately; at the same time, it is strongly and rigidly designed. Locating points of a different kind from those shown can, of course, be used; and the requirements may be such that adjust-